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HOW SHALL WE FOCUS?

TRANSLATED FROM THE GERMAN BY JULIUS F. SACHSE.*

THIS certainly sounds like a curious question, and yet it is a most pertinent one, especially if one exercises but a little circumspection, and observes in what manner this most important photographic manipulation is done.

Of all the various ways and methods the most reprehensible one is to attempt to focus with a stop inserted in place. It seems hardly necessary to repeat that even if the focus or definition without a stop was as absolutely sharp as the lens could cut it, that the insertion of a stop enhances the sharpness or definition of the image to a still greater degree. To the contrary where the reverse is the cause, *i.e.*, the image focused with the stop or diaphragm in place, the operator must be satisfied with whatever sharpness of definition was originally obtained.

In the latter case there is no possibility for improvement. The most difficult problem, however, in focusing is, leaving out the accurate manipulation of the adjustment, to find the proper focal point upon the ground glass.

In the reproduction of a flat surface it is reasonably easy to obtain a proper focus, provided the objective covers the plate;

^{*} Wochenblatt, January 30, 1894.

then all that is requisite is to place the focusing screen and the original parallel to one another, which naturally brings the axis of the objective perpendicular with both planes.

Different is the condition in portraiture, as here we have not to deal with large surfaces, but with plastic human forms, and it is the latter condition which causes the greater difficulties in securing a proper focus, than the first mentioned class of subjects, on account of the difficulty to keep sharp different points which rest upon an uneven plane.

The almost universally accepted rule is to focus sharply on the eyes. This rule, however, is misleading, as when fine results are wanted it holds good only for small size portraits, and only then when the exposure is made with a lens-system of ample focal length, or in other words when there is no attempt to strain the lens.

With objectives of large size it is even more difficult to obtain a negative of a focal definition to suit all requirements. It, however, depends greatly upon their quality. Any attempt to make a three-quarter life size head with the objectives now in universal use will prove how difficult it is to get it sharp in all parts, and a problem which is hardly to be looked for by direct exposure. But then again that is hardly the object of such large portraits.

Setting aside the fact that a universal sharpness in a large portrait by no means adds to its artistic merit, we must acknowledge that portraits of large dimension are intended to be looked at from a greater distance than small ones.

Under such conditions the minor details harmonize themselves to a more or less greater extent, and the contrasts disappear, thus it will be seen that a universal sharpness would by no means be an improvement.

For example, if we attempt to obtain a picture of satisfactory sharpness and definition on a plate 20x24 inches with a Voigtlander Euryscope No. 7 (4") one must thoroughly understand the capabilities of the instrument to know exactly how much dependence may be placed upon it.

If with the above named objective one were to confine themselves to the quoted rule and focus absolutely on the eyes, it might easily happen that in sundry other parts of the portraits there would be a somewhat undesirable vagueness of definition.

Where the sitter has a strong protruding nose the operator is often forced to change the focal point towards the front, so as to obtain a sharp definition of that organ, if we do not want to risk that the nose appear in the picture unsightly and swollen.

It is to be regretted that no description can be given of the various cases that present themselves to the professional portraitist. However, much may be learned by a visit to the studio of any photographic artist of acknowledged ability and reputation; and by examination of the large specimens on exhibition.

Photographers in smaller towns should visit the larger city studios at least once a year, to study and compare the exhibited specimens.

The main point in focussing, as before stated, consists in the proper adjustment of the ground-glass or screen.

A well-known North-German photographer lately gave the following interesting hints on focussing. He first of all cautions his operator to be careful in the adjustment of the focussing screen, use it concientiously, and note its requirements as soon as the model enters the studio.

If a bust picture is wanted, the top of the screen is tilted back towards the operator, as the camera is usually pointed downward. Great stress is also laid in this establishment on the side swing, by which means the ground glass is brought parallel, as well as horizontal with any protruding part of the face. So certain is this method, that "make overs" are almost unknown in this establishment.

It is well-known that bust pictures are the easiest to focus. The difficulties increase with every attempt to bring more of the picture within the field, in which case a different point of view must be taken with reference to the accessories, decorations, etc.

It is here where the greatest blunders are oftenest made. In provincial towns it is often found that extraordinary efforts are made to have the whole picture sharp in every detail, a procedure which is as aimless as it is unnatural. For comparison, take for instance, a long mall of trees in which the line of trees in the increasing distance gradually recedes perspectively. Indistinctness increases in the same ratio when viewed with the naked eye.

Now would it appear natural if on the picture all trees would be depicted equally sharp? Certainly not Technically an objective which would achieve such a result, no matter how much it would excite our admiration, artistically such result would be valueless.

This fact is even more pertinently illustrated by a Pommeranian merchant, who had his house photographed. The structure was a square dry-goods-box-like structure, with two gable ends and a plain tile roof.

When the photographs were delivered he refused to take them, as the house was photographed crooked, viz.: the slopeing perspective of the roof.

Now as not everything can be square in the perspective, just as unreasonable is it to expect that all points in a portrait shall be of equal sharpness of focal definition.

All that is necessary is to view a photographic portrait as one would the original. When one person gives to another respectful attention, the surroundings, whether table, wall decorations, etc., are overlooked, and remain unnoticed, the person receiving our undivided attention, as all secondary objects do not come within the focal scope of our interest.

Equally so it should be with a portrait where the personality requires our first undivided attention. And entirely on this account should we focus on the sitter, so as to bring out all the leading characteristics of the original, even if we neglect some of the secondary or minor details.

For instance, a loose curl, a point of lace, etc., often, by its vagueness of definition, adds greatly in bringing out a portrait. It is always more artistic than when the whole is of equal sharpness, as if cut out by a mere machine.

Focusing consequently exercises the greatest influence upon the beauty of the resulting portrait, and in the hands of the experienced operator is a mighty factor in producing an artistic portrait.

THE ART OF ILLUSTRATION.*

BY W. LEWIS FRAZER.

"STANDING room only" inadequately described the condition of the auditorium of the Academy of the Fine Arts on Saturday afternoon, Feb. 17th, on the occasion of Mr. W. Lewis Fraser's lecture on "Illustration." Mr. Fraser's lecture of Saturday, Feb. 10th, at the same place, served to advertise his talks most extensively among art lovers, and the audience was representative of that part of the Philadelphia public which has to do with art not only as life-work but for culture's sake as well.

"What is the manner of these pictures?" said the lecturer, who first painted a poetical word picture of Florence, Venice and Rome; their churches and palaces, adorned with the masterwork of Giotto, Ghirlandejo, the brothers Orcagna, Ucello and Massacio, Carpaccio, Paul Veronese, Tintoretto, Raphael and Michael Angelo. "Are they classic, academic, impressionistic, plein-airist, romantic? Are they 'Art for art's sake?' While it is true they possess the germs of all these schools, they are not of them. The gentle historian of Italian painters, Vasari, says well in speaking of such a one, 'He painted stories on the walls of such and such a church.' In a word, these paintings are all illustrations, for an illustration, I take it, is a picture which elucidates written text; which conveys the meaning of the author as the artist understands it, to the brain by means of the eye. The great masters who painted them were illustrators, and the grandest and greatest period of art (the Renaissance) was the grandest and greatest period of illustration. The artists of that time were workmen."

Here the speaker said when the Peruzzi and the Bardi had built their chapels, after the masons and carpenters had done their work, the other and superior workman, Giotto, was called in. "Paint us," said the Bardi, "on these walls some scenes in the life of St. Francisco, our patron saint." Giotto took the

^{*} in rais of lecture delivered before the students at the Philadelphia Academy of Fine Arts.

manuscript, read it carefully, and by the aid perhaps of the then art editor, the Bardi confessor, made illustrations on the walls.

"Early in the fifteenth century," continued the lecturer, carrying his hearers down the gallery of time, "printing was invented. Faust and Guttenberg, when they printed their Bibles, left a space where the initials should be, for the illustrator to work in something which should add interest. Later in Venice, Germany and the low countries, Durer, Holbein and Von Leyden put engraved pictures in printed books. But methods such as these were laborious to the finger and brain, and illustration was more and more relegated to the poorer artists and became a minor art.

"When art awoke renascent," said Mr. Fraser, "it awoke as many babies awake, cross and peevish, and soon became, as it has continued, a thing of schools and fads. During the last hundred years we have seen the classicists, the romanticists, the school of 1830, the pre-Raphaelite, the impressionists, the pleinairists, the independents and the latest-no, not the latest," meditatively, "last year they would have been the latest-the Kodak fiends, admirers of instantaneous photography on the one hand, and the purple, orange and blue men 'the tricolorists,' on the other. The latest up to date—although it is nearly a week since I heard from Paris," the speaker remarked, half apologetically, "are the envelopists, whom the Rosicrucians, vanished like the morning dew, have left to erect unhindered their altar to the unknown god. But whatever else the youthful warring factions may differ in, they are in the main agreed that subject is of no moment; a story does not count; that it is the manner, not the matter, of a picture we should admire."

The lecturer continuing said: "Naturally the work of conveying to the brain, by means of the eye, the author's intention has been up to a few years relegated to black and white, and to a class of men-workers in black and white only, known as illustrators. But among these there have been great men, as Cham, Daumier, Gavarni, in France; Leech and Cruikshank, in England, and in America, Felix O. C. Darley. To-day, however, we have men who are doing splendid work as both painters and illustrators, and as a consequence there is no country in the world

where the average of illustrative work is higher than in the United States."

Here the speaker took up the practical side of the theme. He gave as the necessary qualifications for the illustrator for to-day: First, invention and imagination; second, he must be able to compose well; third, to draw well; fourth, he must be well read, possessing a knowledge of manners and customs and history. The two important factors in the revival of art in illustration during the last twenty-five years have been the invention and many applications of photography, and the enterprise and liberality in expenditure of American publishers. And let me say here that I believe to-day in these United States there are four profitable resources for the American artist—portraiture, teaching, illustrating and decorating—and I believe that more than twice as much money was paid last year by the publishers for art work as was paid into all the picture exhibitions in the United States."

As to the part played by photography, Mr. Fraser said the drawings of the illustrators twenty-five years ago were made on wood and given to the wood engraver, who usually kept a shop where one man cut the sky, another the faces, another, who was good at coats and hats, was kept on such work.

All the cutting was done on the original drawing, and when the thing was done the draughtsman, if young and enthusiastic and not hardened to the process, tore his hair and moaned over the dry bones of his design. Some time between 1860 and 1870 the discovery was made that these drawings could be photographed on wood and that the engraver could engrave these photographs.

The speaker then described modern reproductive methods, and thereafter kept the illustrators in the audience busy crystallizing the valuable information with which the atmosphere was pregnant, as to the material best for the aspirant to the favor of the editor of the art department of the magazine of to-day.

Not until the world ends shall we know what the trifles of life are, All man-made gods have been strangers to love,

CHEMICAL NOTATION AND NOMENCLATURE FOR PHOTOGRAPHIC WORKERS.

THOMAS BOLAS, F.I.C., F.C S., IN " PHOTOGRAPHIC WORK.

HE symbolical language used by chemists has grown up to a remarkable degree of completeness, and a compact formula often now carries with it a large fund of information, among the most important items of which are the composition of the substance by weight, and often also by volume-to say nothing of giving certain thermic data, with probable parentage and reactions of the compound. Last, and least, the formula will often give to such humourists as "Dr. Burton Coxe" the opportunity of devising a dozen or more strange but strictly systematic names for a common and everyday substance. Indeed, symbols are almost necessary to the chemist, as concisely expressing what would take many long sentences to represent less completely and satisfactorily, We, however, do not intend to fully expound all the uses of symbols which the experimental chemist makes use of, but merely to deal with this matter and with chemical nomenclature as far as they bear upon photographic practice and the current photographic writings.

If chemists proceed to analyse or separate the various forms of matter met with in everyday life, or discovered as rare materials, until separation can be no longer effected, they arrive at certain forms which are called elements, or simple substances. Chemists, however, recognize that they can never be sure of having arrived at finality in this respect, so the term element merely means a substance not yet decomposed, and it occasionally happens that a supposed element turns out to be a compound, and it has occasionally happened that what was once regarded as a compound is now looked upon as an element. Chlorine, for example, was formerly regarded as a compound of oxygen and muriatic acid-and even to this day is occasionally referred to as oxy-muriatic acid. Hence it is that the number of "elements" contained in the list fluctuates from time to time; but between sixty and seventy have been on the list for many years. At the present time, however, the number is much nearer seventy than sixty. Of these, however, not half are of everyday importance, and one of them—oxygen—forms nearly half the weight of the earth's crust.

Recent researches have led to a general belief that the so-called elements may, perhaps, when under such chemical stress as fractional precipitation, drift very slowly into each other, although up to the present no complete transformation has been traced. The view of Mr. W. Crookes, who, besides Professor Auer von Welsbach, has been the principal worker in this promising field, is that matter is developed from an original form which may be called protyle, and that in this development it passes from stable point to stable point through intervals of instability. What he calls by-products of elemental manufacture—a few particles of intermediate material—may, according to Crookes, account for certain variations in the spectra of the elements, when strained by fractional precipitation.

The elements themselves in some cases bear names by which they were known before the present era of chemical investigation—for example, sulphur, mercury, iron, copper, or tin; while the more recently discovered have in some cases received names indicative of characteristic properties, and in other cases purely fanciful names. Thus, as an example of the first category, we may mention phosphorus, from the Greek $\varphi \omega s \varphi \delta \rho \sigma s$, a torchbearer; and as an instance of the latter we may mention palladium, so named after the statue of Pallas $(\pi a \lambda \lambda a \delta \omega v)$,

Each element is represented in the symbolic language by an abbreviated form of the name, this abbreviated form consisting of the initial letter alone, or associated with one of the other letters: thus, C stands for carbon, Ce for cerium, Cl for chlorine, Cr for chromium, and Co for cobalt. In some cases these abbreviated names are derived from Latin or Latinised names, and in one case from a German name. Thus, Ag stands for silver (argentum); Fe for iron (ferrum); Sb for antimony (stibium); Na for sodium (natrium); and K for potassium (kalium).

In each case the symbol stands for one term in a numerical ratio, H (the symbol for hydrogen) being taken as standing for unity in the series. These numbers are found experimentally, and are subject to errors, consequently slight divergences exist in different tables.

In the following table, which gives the elements having more especial importance as regards photographic operations, we give against each name the abbreviated form or symbol and the ratio number (commonly called atomic weight), as, according to the atomic theory, these numbers indicate the relative weights of the elemental atoms.

Element.	Symbol.					Co	Ratios of Combination.	
Aluminium			Al	0			27	
Antimony	•		Sb				122	
Arsenic	•		As				75	
Barium			Ba	0			137	
Bismuth			Bi	0			218	
Boron			Bo			4	11	
Bromine			Br	4			80	
Cadmium			Cd				112	
Calcium			Ca				40	
Carbon			C				12	
Chlorine			Cl				35.2	
Chromium	0		Cr				52	
Cobalt			Co				59	
Copper		٠	Cu	0			63	
Fluorine			F				19	
Gold			Au				197	
Hydrogen			H				1	
Iodine	0	٠	I	0			127	
Iron '			. Fe		0		56	
Lead			Pb				207	
Lithium		0	Li	٠		0	7	
Magnesium			Mg				24	
Manganese			Mn				54	
Mercury			Hg				200	
Nickel			Ni				59	
Nitrogen			N		٠		14	
Oxygen			O				16	
Palladium			Pd				107	
Phosphorus			P				31	
Platinum			Pt				197	
Potassium	4		K				39	
Silver			Ag				108	
Silicon			Si				*28	
Sodium			Na				23	
Sulphur			S				32	
Tin			Sn				118	
Zinc		0	Zn				65	
							-	

We now pass on to the use and significance of the chemical symbol. A symbol standing completely by itself has no qualitative or numerical significance whatever, as the combining weights are merely ratios or proportions holding good among themselves.

Thus the symbol H is without any significance, excepting that it vaguely suggests hydrogen; but if we write HCL the formula indicates that hydrogen and chlorine are chemically combined or united together in the proportion of 1 part by weight of hydrogen, and 35-5 parts by weight of chlorine; writing the symbols side by side, with no intervening sign, signifying that the elements represented are in chemical union or combination.

This brings us to the naming of a compound of two elements, and the characteristic determination in this case is ide; thus such a compound might be called chloride of hydrogen, or even hydride of chlorine; but the substance in question is seldom spoken of by either of these names, as it is a well-marked acidand is commonly called hydrochloric acid. Here we have one of the numerous cases in which several names may be given to the same substance. Let us, however, study a few other binary compounds, any one of which may have a name ending in ide. The formula AgS indicates a compound of silver and sulphur containing the elements in the proportion of 108 to 32; such a compound would be called silver sulphide, or, what amounts to substantially the same thing, argentic sulphide. In the older books, however, the termination uret is employed instead of ide, and the compound in question would be named silver sulphuret, or sulphuret of silver.

In the case of the compound AgI—commonly called silver iodide, iodide of silver or argentic iodide—the two constituents are characteristically metallic (silver), and characteristically non-metallic (iodine), respectively; and when this is the case, it is an almost universal practice to attach the determination *ide* (characteristic of a binary compound) to the name of the non-metallic element. Thus, one would rather say iodide of silver, than argentide (or silveride) of iodine.

At the present stage it is desirable to approximately indicate the kind of distinction usually made between a metal and a nonmetal—a distinction no less real and useful from the fact that several of the elements lie so much in the borderland between the two classes, that they may be classed with either.

Among physical distinctions, the high conducting power of the metals for heat and electricity is notable, as also their considerable opacity to light, and that considerable reflecting power which underlies the so-called "metallic lustre." From a chemical point of view, however, the most notable distinction is that, generally speaking, the lower oxides of the metal form alkaline — or, at least, basic — substances by reacting with water, or, what comes to about the same thing, by replacing part of the hydrogen in water. The oxides of the non-metals, on the other hand, generally form acids by combinations with water. The metals are often called electro-positive elements, as distinguished from the non-metals as electro-negative elements; as the metals tend to the electro-negative terminal when a compound is decomposed by an electric current, and, under similar circumstances, the non-metals tend to the electro-positive terminal.

It must, however, be clearly understood that there are no absolute criteria by which metals and non-metals can be distinguished, and the division of the elements into metals and non-metals, though convenient in some respects, must not be regarded as a "scientific" distinction.

In writing a formula of a binary compound it is more general to write the symbol of the metal first; thus AgI is more usually written than IAg; but this is more the result of a kind of tacit consent, than as the result of a recognized usage, and it is by no means rare for persons whose instincts prompt them to personal independence to disregard the practice of writing the symbol of the metal first.

Sometimes we have a binary compound of two well-defined non-metals, as for example, CS_2 (carbon disulphide), N_2O (nitrous oxide); and in such a case the syllable ide almost unconsciously drifts to the name of the element which most frequently takes it in other instances. Sulphides and oxides are much more com-

mon than carbides or nitrides, so almost by habit one writes carbon sulphide or nitrogen oxide, rather than sulphur carbide or oxygen nitride. Occasionally convenience with respect to other usages steps in, but we need not pursue this branch of the subject further. It not unfrequently happens that two elements combine in several proportions, and all the various compounds have to be distinguished, this being generally done by incorporating Greek or Latin syllables signifying number, degree, or relation.

(To be continued.)

The Photographic Society of Japan .- An ordinary meeting of the above mentioned Society was held at the Geographical Society (Chiguku-Kyokai) Nishi Konyacho, Tokyo, on January 12th, at 5 p. m, the President, Viscount Enomoto, in the chair. The minutes of the last meeting having been read and approved, the following gentlemen were duly proposed, seconded, and balloted for. They were unanimously elected: - Professor Detrich and Messrs, T. Hoshino, N. Kanda, and T. V. Pineyro. Viscount Enomoto having to leave the chair, his place was taken by Professor John Milne, Vice-President. An enormous lens by Steinheil of Munich, which was owned by the Imperial Arsenal, was shown by Mr. K. Ogura. The focus is 2 meters and the diameter 150 mm. The lens is of enormous weight, being apparently nearly solid glass. Mr. Ogura also showed some fine enlargements from quarter plates exposed in the hand camera. The size of the enlargements 18 by 12 inches. Mr. Tanaka showed a fine collotype from his own negative. Mr. W. K. Burton and Mr. C. Arito showed the results of comparative exposures on an ordinary plate, a Sandell non-halation plate, and a Seed non-halation plate. A very difficult subject had been selected. These two nonhalation plates showed about the same results - merely a trace halation - and both immensely better than the result with the ordinary plate. A letter addressed to the President of the Photographic Society of Japan, asking him to join a committee which is taking step to erect a monument to Daguerre, was received from Societe Française de Photographie. The proceedings ended with a vote of thanks to the Chairman.

A PHILADELPHIA ILLUSTRATOR.

JOSEPH PENNELL AND HIS WORKS.

ONE of the most interesting black and white exhibitions that have been held here recently is certainly the collection of etchings, pen drawings and distemper drawings by Joseph Pennell, now on view in Earle's galleries, 816 Chestnut street, Philadelphia. It is not a common privilege to see as many as 266 works by one man on exhibition, and these show Mr. Pennell at various periods in his artistic career.

Mr. Pennell is a Philadelphian by birth, but apparently a Londoner by adoption, for he has made the English capital his home for half-a-dozen or more years, and his best work has been done abroad. His earliest etchings were made in Philadelphia, and in them he seemed to discover new beauties and romantic interest in what would have been rather prosaic subjects in other hands. "Water Street Stairs," "Sauerkraut Row," "Chancery Lane" are the titles of a few, and very suggestive names too. These were executed early in the '80's. In 1882 Mr. Pennell went to New Orleans to make sketches illustrative of Mr. Cable's delightful Creole stories, and the etchings made on this trip are filled with interest and with good artistic qualities. The next series were made in 1883. Italy was the scene of that campaign, and readers of some of the foremost magazines know how well his time was spent in the nursery of art. In 1884 the Edinburgh series made their appearance, and Mr. Pennell mounted very much higher the ladder of estimation. These views are among the very best work he has done, and were so truly admired, owing largely to the manner of telling his story, which Mr. Pennell made his own, that his style soon became widely imitated, until now his influence on a certain class of English illustrators is too plainly apparent.

From 1887 to 1892 many of the pictures of English cathedrals made their appearance, and it is generally admitted that in them the artist shone at his best, for they have a spirit and a handling totally unlike any other pictures of English cathedrals, and

there, as almost everywhere he goes, he discovered new things even in such well trodden fields. Many of the best examples in each of these stages of the artist's career are shown in this exhibition, the finest being his etching of St. Paul's Cathedral, executed in 1801. His drawing of "A Wet Evening, Parliament Square, London," is a remarkably fine piece of work, and his "Le Puy, France," is a strikingly Dureresque etching, one of a series of illustrations to "A Painter's Paradise." Among his latest work are his pictures to Mrs. Pennell's book "To Gypsy-



One of Pennell's Earliest Efforts.

land." Here Mr. Pennell branches out into a new line, and he makes one wish he had not. His line is not figure drawing, and although he draws his gypsies well enough, they are not so good as very many other illustrators could draw them, while in his

own sphere of architecture and landscape he practically occupies the field alone. The exhibition is not only an enjoyable one, but is an interesting one, as it shows the gradual development of one of the first illustrators of to-day. He impresses one as an artist more intent upon conveying an impression and the spirit of his subject than tedious and uninteresting, although correct, details of the same.

PICTURESQUE HEADS.

XANTHUS SMITH.

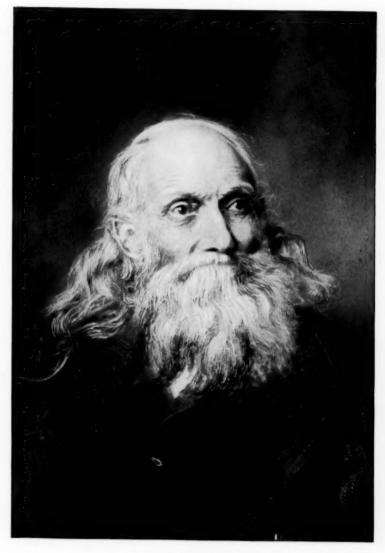
IT has always been a beau-ideal scheme with us that we would some day get up a collection of very picturesque character heads, but whenever it has come to the point of carrying out our design, a number of obstacles have presented themselves.

In the first place one finds that amongst their immediate acquaintances, there are few, if any, who have suitable heads for pictures,—that is, faces that would pass as anything more than mere likenesses of the individual themselves, and interesting to themselves and their friends only as such.

The desire of every one, from the child to the aged person, is naturally enough so far to conform in all those personal matters over which they have control to the average of what surrounds them, that the marked peculiarities which give piquancy in a picture are either subdued so far as to be but slightly noticeable, or else entirely lost, and should nature have dealt so rudely with one or two of our acquaintances as to burden them with certain vagaries of countenance that place them entirely outside the pale of the usual, do we not feel a delicacy about asking them to submit to the vigorous treatment that will put in existence an exaggerated semblance of their peculiarities?

If we look outside of our acquaintances into the very extensive field of the public at large, how are we any better to attain our object of portraying character?

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AN ANCIENT MARINER.



This extended range, it is true, gives us more frequent examples of what we search for, but we are only tantalized by having presented to us the very models that we are looking for to fill our conception, and knowing that there is little or no hope of being able to secure the necessary sittings. Can we stop every old man with large features and flowing hair and beard that we meet on the street and politely introduce ourselves as an enthusiastic amateur photographer who is anxious to make a collection of picturesque heads for an album? Scarcely. In the city car, at the railway station, and on all lines of travel we are sure, more or less frequently, to see our man or woman. But what short of some fairy interposition will give us an acquaintance under such conditions, or a subsequent posing?

The public generally have not the slightest conception of the difficulty experienced by artists in securing picturesque models. So averse are people to being portrayed otherwise than in what is generally considered presentable condition, that even in comparatively remote country places, where we fall in most frequently with the best characters in face and costume, the bare mention of an intention to paint or photograph is certain to set the attention upon combs and scissors and Sunday attire, of which there is always sure to be a store in reserve, and to insist upon an omission of such regard to the toilet is sure to result in utter defeat of the ultimate object.

One exception we should make, perhaps,—namely, the tramp. The tramp, however, is out of our category. Picturesqueness is not necessarily depraved ugliness. The picturesqueness that the artist is to seek and portray must be accompanied with a certain amount of grace and dignity. An ill-shapen, poorly-developed and mean-featured individual with hang-dog countenance, will never make a picture that can be looked upon with other than contempt. Sheer absence from soap and water and comb and razor alone will not suffice. There must be in the character just enough intellect, intelligence, and look of manly honesty to enlist our sympathies. We should feel as if we could have some words with the individual, as though he, were one with whom we might interchange ideas, and even perhaps with benefit to ourselves.

It is indeed a curious inquiry, into the subtle qualities and influences which constitute the picturesque in its higher sense. Picturesqueness must not be confounded with abject ugliness. We must not plunge into the absolutely commonplace in our search for it, yet in human nature we must not err on the side of too much elevation.

The most true and severe criticism which ever has been, or can be brought against the Dutch painters, is that they often stooped too low in their fondness for the picturesque. It is their touches of vulgar humor and often excessive commonplaceness that robs their grand historical subjects of the dignity and sentiment which they should possess,—and with many of their rustic scenes and genre pictures, if it were not for the splendid art qualities which they display they would be beneath notice.

In our efforts, however, to avoid the low and vulgar, we must not run into the error of some of the French painters of the latter part of the past century, and pose men and women suitable to pose as gods and goddesses, in rags, and have them performing menial services amongst humble surroundings.

There should always be maintained, as far as possible, a certain consistency, and it should never be lost sight of, that true art work ought to aim at some refining and elevating influence, be it even but in a slight degree.

There is really nowhere to be found so much excellent picturesque art as with the English painters. Covering a period of a century, back from the present time, they have given us thousands of beautiful examples in their domestic genre subjects, of that nice balance of poetry and sentiment amongst commonplaceness, and sentiment of elevation amidst rusticity, which, combined with fine composition, admirable effects of light and shadow and beautiful colouring, make a crowning success of art. We must say in passing, that it is a matter of regret with us that for twenty years past there has been a growing neglect of English art, and in this country ending in an absolute ignoring of it. Chiefly through the efforts of the dealers in art, public attention has been turned solely upon Paris art, and all our young painters go there to study. Unfortunately the French display neither beauty nor elevation in their domestic subjects.

We will not mention any of the names of the best English painters of domestic subjects, because there are too many to begin to enumerate them, and to mention three or four would only do injustice to the rest. What have we emanating from France that fills the place of this truly domestic art? which may be hung, unreservedly and unapologetically in the majority of such homes as are to be found in this country, where reigns the blessing of all that goes with family and home and home ties. In such homes there is no place for the sensual and vulgar and disagreeable in art.

To return to our subject of character heads, we would recommend that both professional and amateur photographers, but more especially the latter, who are supposed to have more leisure for experimental work, should, whenever opportunity presents, seize upon good, picturesque character subjects. The writer has in his possession two facsimilies of drawings, one by Leonardo Da Vinci, the other by Michaelangelo, of exceedingly quaint picturesque character heads, executed with an exact care for every mark and wrinkle that shows how they fairly loved the work, and that even these greatest painters did not consider such subjects beneath them.

In pursuing such work in photography, care should be taken to secure a lighting that will attain breadth and softness in the lights and shadows, with an abundance of half-tones. A direct harsh lighting and under exposure always result in failure, not only because it produces hardness, but also because the work will have a more commonplace effect than will be given by the broader, softer lighting. In the model look for full flowing hair, not too much combed and frizzed, and large well-formed expressive features, with vivacity of expression.

We see many examples of fine character heads, produced by photography, notably by some of our most talented western photographers. They have attracted much attention at photographic exhibitions and have received the notice which they deserved. Some of the work has been upon a large scale, but even when no larger than can be done upon a five by seven plate it may, with proper treatment, be made quite attractive enough.

With all those who will say, "What do you photograph such ugly old people for?" we have nothing to do. They have not entered the precincts of picturesque art. There are no sermons in rocks and trees, and no histories in countentances for them.

In our illustration to the present number, we have endeavored to convey some idea of what may be considered a suitable head for picturesque portraiture. Of course much is lost by the process of reproduction. We have called our picture "The Ancient Mariner" because the subject of it followed the sea throughout the active part of his life. He is sprightly and intelligent, and has been highly prized by artists as a model until increasing years and feebleness have compelled him to seek retirement from the busy stir of city life.

FACT, FANCY, OR PROPHECY - WHICH?

A MONG the fables of the Abbe Fenelon, written during the latter half of the seventeenth century for the education of the Duc de Bourgogne, grandson of Louis XIV., is to be found an interesting narrative called "Voyage Suppose." This was originally published in the year 1690, at Amsterdam.

Among the marvels which are recounted in the story, appears the following paragraph, which will naturally interest every

photographic student. [Translation.]

"There was no painter in all the country, but when they wished the portrait of a friend, or a picture representing some lovely landscape or other object, they put water into large basins of gold and silver and made this water face the object they wished to paint. Very soon the water would congeal and become as the face of a mirror, where the image dwelt ineffaceably. This could be carried wherever one pleased, and gave as faithful a picture as any mirror."

Any one wishing to consult the above in the original, can find it on page 337, volume sixth. Œuvres completes de Fenelon, Paris, 1850,—a work which is to be found in any of the larger libraries.

In reading the above account, wonderful as it is, one cannot forbear thinking, that if the whole description grew out of the fertile brain of the worthy prelate, whether he ever thought the seeming impossibility would become a reality, and that in less than a century and a half, or was a process akin to the present photography known to the Rosicrucians and alchymistic philosophers who flourished throughout Europe two centuries ago?

This forecast, or whatever it may be called, seems the more strange when it is placed side by side with "Gyphantia," that peculiar account of photographic views published in 1761, a full account and facsimile of which was published in the AMERICAN JOURNAL OF PHOTOGRAPHY, May, 1890.

Taking these two descriptions of processes akin to photography of the present day, one cannot but question if founded on "fact," by whom, where, and when were the discoveries made. If "fancy," where did the idea arise, or come from—all fiction must necessarily have some foundation in fact. If "prophecy," by what peculiar power were these two French savants, living almost a century apart, permitted to lift the veil of the future, and forecast a process now universal, the practice of which two centuries ago would have brought the "Sorcerer" to the stake.

J. F. SACHSE.

What there is in a Ton of Coal.—From one ton of ordinary gas coal may be produced 1,500 pounds of coke, 20 gallons of ammonia water, and 140 pounds of coal tar. By destructive distillation the coal tar will yield 69.6 pounds of pitch, 17 pounds of creosote, 14 pounds heavy oils, 9.5 pounds of naphtha yellow, 6.3 pounds of naphthaline, 4.75 pounds naphthol, 2.25 pounds solvent naphtha, 1.5 pounds phenol, 1.2 pounds aurine, 1.1 pounds benzine, 1.1 pounds analine, 0.77 of a pound toludine, 0.46 of a pound anthracine, and 0.9 of a pound toluene. From the latter is obtained the new substance known as saccharine, which is 530 times as sweet as the best cane sugar, one part of it giving a very sweet taste to a thousand parts of water —Science.

AN IMPORTANT GATHERING.

ON the evening of Friday Feb. 16th, a number of professional photographers gathered in the spacious rooms of Messrs. Husted & Co., 1344 Ridge avenue, Philadelphia. After a social interchange of ideas, a practical demonstration was given of the Williams Flash apparatus. Three exposures were made in the studio upon 14x17 plates, the first being one of Mr. Edwin Cooper, the genial traveller so well known to all photographers. The second, the portrait of a lady, the picture being a nine-inch head. The last attempt was of a large group containing fifteen persons. The plates were at once developed, fixed, shown and commented upon. Considering the fact that the operator, Mr. Cassebaum had had no previous experience with the apparatus, the negatives were pronounced all that could have been expected, and fully showed the wonderful actinic powers of Blitz-pulver, especially when used in connection with the Williams apparatus.

After the demonstration, the party adjourned to the spacious printing room, where tables were spread and a fine lunch provided for all present.

After the viands were disposed of several addresses were made, and an interchange of ideas expressed on the advisability of the formation in Philadelphia of a Society of Practical Photographers, for mutual benefit and the progress of the art.

It was the consensus of all present that such a society was a necessity in Philadelphia. Finally a resolution was passed and a committee appointed to put the matter into practical shape for the formation of a Photographic Society whose membership should consist of practical and professional photographers, together with men of acknowledged scientific attainments. Among those present were: R. L. C. Rambo, L. P. Marshall, R. H. Ennis, H. A. Webb, J. A. MacIntire, J. R. Cummings, Theo. Brownworth, H. Trevaskis, Chas. Wetzel, T. Schriver, J. A. Hurst, C. H. Graves, Thos. H. McCollin, Professor Edmunds of London, Miss A. Husted, Miss Slenker, Alfred E. Maris, E. K. Cooper, Louis Greenig, L. Walton, W. W. Weier, F. M. Wright, J. H. Cassebaum, Chas. Warren, W. Bouncher, A. Helfer,

J. Will Killmer, L. H. Parmelee, Mr. Weiser, W. T. Paullin, Louis Walker and sons, Frank Kientzle, Mr. Powell, G. Schriver, Fred. Brownworth, F. Warren and others.

LANTERN SCREENS.

JAMES LEWIS.

RANSLUCENT screens are perhaps the most attractive method of displaying slides before small audiences. They are convenient to occupy a doorway between two rooms, the lantern and operator being in one, the audience in the other, and they should not be made too big if a brilliant result be desired. Many houses have two fair-sized rooms separated by folding doors; such places are admirably suited for a lantern display on a small scale. A light wooden frame should be constructed about four feet square, across which thin tissue or tracing paper must be stretched; it can be fastened by means of drawing pins. A vegetable parchment, which is admirably suited for the purpose, is supplied in rolls sixty inches wide. By reason of its toughness, it could probably be used many times before getting damaged. For very small screens of this kind, finely ground glass answers perfectly. The spaces between such a screen and the door-posts and beam overhead can be draped with curtains, the frame itself being either hung or supported on legs, at such a height that its centre is almost five feet from the ground. Employing an oil lantern with photographic slide of medium density in this way, a very reasonable result can be obtained, at less cost and with less trouble than any form of limelight.

It must be borne in mind, however, that all kinds of tissue paper do not yield equally successful results: in some of the cheaper kinds the fibres are here and there gathered into almost opaque clusters, while others have a yellowish tinge by transmitted light. The best quality of white tissue should be employed, unless a thin light-blue coloured tracing paper (the "stag" brand is what I have used, but what mill or make that may be (I cannot say) is accessible, which is by far the best material I have up to the present tried.—The British Journal of Photography.

THE INVENTION AND DEVELOPMENT OF PHO-TOGRAPHIC PAPERS.

THE principle of obtaining pictures by the action of the sun's light is not new. The old alchemists knew the qualities of chloride of silver, but not before 1777 was any attempt made to derive any practical use from them. In that year, the Paper Makers' Circular informs us, the German chemist Scheele tried the effect of light on acid compounds of silver, though he does not seem to have gone beyond preliminary trials. He was followed in England by Wedgewood and Davy, who first undertook, in 1802, to copy such pictures on prepared paper, but their success was only very partial, as the paper which they were able to use was not suitable, for in those times the art of paper-making. was not yet exercised in any scientific way. Moreover, suitable chemicals were then not yet known for fixing the picture, so that experiments for that purpose offered the greatest difficulties. The Frenchman, Niepce, of Chalons, tried another process in 1814 with metal plates, which he covered with a surface of asphalt. These plates, according to our present ideas, however, were not very sensitive, and the exposure therefore, had to be so very long that his process could not be used for portraits at all. Daguerre, in Paris, meanwhile had made similar trials with silver plates, and in 1829 was joined in his experiments by the above mentioned Niepce. After the death of the latter, Daguerre continued to work alone, and perfected his process in 1831, when he explained it to the French Academy of Science. Being the best method then l:nown, it soon became very popular in all civilized countries. Old daguerreotypes still exist in most families, but they could never be prevented from fading rapidly, nor did they show a pleasing likeness in most cases, because the sitter had to remain immovable for so long a time that the face assumed a strained and unnatural expression. It is, therefore, no wonder that this process at present is almost forgotten, and certainly no longer used. Its shortcomings soon induced inventors to try other ways. Among them Talbot experimented with paper covered with a silver surface, on which the picture at first was invisible, but was afterwards "developed" by chemical means. Thus he obtained a so-called "negative," from which the "positive" or actual picture could be printed. However, the surface of the paper at his disposal was not sufficiently smooth and even, and, therefore, though the principle of modern photography was thus established, it could not yet be practically carried out. Yet this is the basis of our present photographic art, and required nothing but a suitable paper to result in the further development which it has since obtained far beyond all expectations. The Frenchman Niepce de St. Victor, a nephew of the Niepce mentioned before, made a new departure and used glass plates covered with albumen, and was followed by Archer in England, who gave his glass plates a collodium surface. With the further progress of the optical apparatus and the more extended and more scientific use of an ever increasing number of chemicals, we gradually come to the present state of progress in the photographic art, which, even great as it is, makes no claim to have reached its highest point. In fact at the present moment such experts as Lumière, in Lyons, are experimenting with photographs in natural colours.

The next thing to do, after a good "negaitve" has been obtained, was to find a paper on which the "positives," or "photographs" as we now call them, could be printed. This part of the subject, of course, offers the greatest interest to us, and we only gave the above particulars as an introduction. The demand for photographic paper was urgent, and a liberal prize was offered by the consumer. What more natural than that paper makers of all countries during the last 25 years or more have spent a great deal of time and money upon the production of such a paper? But the difficulties of making a really chemically pure, quite even and smooth paper were so enormous that all mills except two had to give it up again. These two are the French mills at Rives, belonging to Messrs. Blanchet Frères and Kléber, and the German mills at Malmedy, belonging to Herr Steinbach and Co.'s firm.

Both makers produce equally good paper, which is made solely from the very best specially selected and most carefully-sorted linen rags, without any extraneous substances, perfectly pure and free from iron and other matters which might cause spots to appear in the paper afterwards. It is most carefully and efficiently sized, for it must resist the frequent baths to which it has been subjected. It must not have either specks or pinholes, or any unevenness in the surface. The testing of every small parcel coming from the machine requires the minutest attention. In fact, the most skillful paper makers and the most ingenious machinists never dare to neglect the smallest detail. This, no doubt, explains why this important branch is entirely in the hands of only two-mills.

It would be beyond the limits of a short article to refer to all the various photographic processes now in use, some of which, like the bromide, carbonite, or platinotype give pictures resembling engravings, while the albumenised and gelatine papers have that extremely brilliantly surface which, with the general public, is the first and foremost requirement of a photograph, and which probably always will remain popular, however much the artistic tastes of a few connoisseurs may point the other way.

The albumenised papers are consumed in so much larger quantities than the non-albumenised, that in writing about photographic papers we shall have plainly to refer to them. The raw paper is made of three brands at the mill, with water marks on the margin, viz.— "Rives" by Messrs. Blanchet Frères and Klèber, and "Saxe" for paper sent out non-albumenised by the firm of Steinbach and Co., and "German Paper" with two pairs of crossed flags, one on each side, by the same firm for the paper which it sends out ready albumenised; for this enterprising maker has within the last few years opened an albumenising department in connection with his paper mills, where the most experienced and skillful albumenisers do the work in the most perfect style.

The great success of the crossed flag brand is all the more remarkable, since this is quite a new departure, since the French rivals, after first having secured arrangements with the principal French and German albumenisers for using Rives paper, raised the price of their raw paper periodically, so that it is much dearer now than in former years.

The Rives paper is only sent out non-albumenised from the paper mill, and bears the brands of the various albumenisers in addition to the "Rives." There are about half-a-dozen or so of such brands which greatly compete against each other, as many of the consumers have great prejudices, and we know of cases where albumenisers having more than one brand, when they had sold out one kind, could not induce the buyer to take the other instead, though it was exactly the same quality in every respect, and was even albumenised on the same premises.

Before the paper is albumenised the sheets have to be most carefully sorted and tested, because, unless the paper is chemically pure, it would show defects when subjected to the sensitising and fixing processes, and unless it is correctly sized the albumen would either permeate the paper, so that the picture would not appear distinct enough on the surface, or else it might not stick fast enough and peel off. The principal size which is used for photographs is 23 x 18, and the weight of the ream of 480 sheets is 22 lbs.; sometimes also heavier weights and larger sizes are required, and sometimes rolls of greater or smaller width. weight of 18 lbs., 18 x 23, is the lightest for even exceptional use. Thinner paper would not be tough and heavy enough to stand The sheets have two different surfaces, as the wire marks of the paper machine are seen more distinctly on one side than on the other. It is the latter which is albumenised. The albumen is evenly put on, and the sheet is hung up to dry. As the coating of the surface sinks down by its own weight to the lower end of the sheet, these sheets are in most cases albumenised a second time and then hung up from the opposite end.

This is a most delicate operation, for if it is not most carefully done the paper is apt to blister, viz. the albumenised surface peels off, and the picture comes off with it.

The albumenising liquid is generally toned with light shades of mauve or pink, and some photographers are very strict in only employing one particular shade.

Albumenised paper can be stored a very long time, and experts maintain that the older it is the better results can be obtained from it. The success of photography is in a great part to be attributed to the use of a suitable paper. Daguerreotypes or glass plates cannot be placed in albums, and moreover do not allow an unlimited number of copies to be taken from a negative. All the earlier attempts came to a dead stop, because the hand-made papers used by those inventors were not good enough for the purpose. This fact furnishes a further proof of the correctness of the view of those paper makers who assert that machine-made papers can be produced superior in every respect to hand-made sorts even as regards strength, for none but an exceptionally strong fibre could stand the action of the chemicals and the frequent baths.

Some of those trade journals always preaching the superiority of English papers over foreign importations could learn a lesson from this, and will be compelled to admit that foreign paper mills are able to make the most superior papers, while experiments to bring out such sorts in our own country have failed hitherto, and are not likely to be renewed, because the trouble and expense are too great and the success is far too doubtful.

Nor is this a question of cheapness, because the raw paper comes to nearly 2s. a pound, which is gladly paid, as long as the paper answers the purposes of the photographic printers.

Thus the paper trade has scored one of its greatest successes in the production of paper, which has amply rewarded the industry and perseverance of the two firms refusing to be discouraged by original difficulties and failures, until they at last make an article now of which any country may be proud. The photographic inventor goes hand in hand with the paper-maker, and the development of modern photography is entirely owing to their joint efforts.

Remember that charity thinketh no evil, much less repeats it. There are two good rules which ought to be written on every heart—never believe anything bad about anybody unless you positively know it is true; never tell even that unless you feel that it is absolutely necessary, and that God is listening while you tell it.—Dr. Van Dyke.

AN IMPORTANT IMPROVEMENT IN DRY PLATES.

IF our advices received from Europe prove true, and they come from a reliable source, a great stride has been made in the advance towards obtaining a perfect dry plate,—one in which all danger of halation and solarization is overcome.

It is well known that the various efforts which have been made looking to that end, such as Multicoated films, Aurantia-Collodion, and Caramel-coated backs, fail to give a reliable result which would compensate for the great disadvantages resulting from their use.

The inventor of the new scheme, conspicuous for its simplicity, is Herr Otto Magerstedt of Berlin, Germany. His process, as stated in his patent specifications, D. R. P. No. 73,101, is simply to coat the glass or film with a soluble non-actinic solution before a final coating with the sensitive emulsion.

To obtain this non-actinic preliminary coating the following pigments are suitable, viz.:

- 1. The red dyes of the Rosanilin group—say Fuchsin and its acid sulphides.
 - 2. Dyes of the Rosalic acid group, rosalic acid, etc.
- Dyes which by nature of their constitution stand between Rosanilin and Rosalic acid, such as Corallin.
- 4. The red and yellow dyes which result in the manufacture of Aurin (such as the Aurin of commerce.)
 - 5. Dyes of the Saffranine group—(Toluidin-red.)
 - 6. Phosphin (chrysanilin.)
 - 7. Uranin.

To produce a plate according to the new process.

A aqueous solution of gelatine of proper consistency is colored with a solution of Fuchsin, this is then poured over the well cleaned glass plate, and left to dry. This is done in day-light. When thoroughly dry the plate is coated with a sensitive emulsion in the usual manner, of course on the coated surface. When dry the plate is ready for use, same as an ordinary plate.

After exposure the plate is developed as usual and fixed in an acid fixing-bath. The latter with the final washing removes

every trace of color, and is said to produce a negative without the sign of any halation.

With certain developers such as Rodinal, the decoloration of the non-actinic film takes place during development and the plate may be examined as any ordinary plate.

J. F. S.

RULINGS OF U. S. TREASURY DEPARTMENT.

GENERAL APPRAISER WILKINSON of the Treasury Department has rendered a decision in the matter of the protest of a Philadelphia stock dealer against the decision of the Collector of Customs of Philadelphia, as to the rate and amount of duties chargeable on certain tissue paper imported by that person. The merchandise consists of small sheets of thin semitransparent paper, 4 by 7 inches in size, designed and used as a covering and protection for cabinet photographs. "We find," says Mr. Wilkinson, "that the merchandise is tissue paper, and affirm the assessment of duty at 8 cents per pound and 15 per cent. under paragraph 419.

The Treasury Department has forwarded to all collectors of customs, explicit instructions in reference to the issuing of certificates of residence to Chinese laborers, under the provisions of the act of May 5, 1892, as amended November 3rd last. One of the requirements which confronts every almond-eyed applicant for a residence certificate is the furnishing of two unmounted likenesses of himself or herself, which are to be affixed to the original certificate of residence, and one to the duplicate. These photographs will be securely affixed to the papers by strongly adhesive paste. Great care will be taken in receiving the photographs, to see that they accurately represent the features of the applicant. If the collector or his deputies have any doubt in regard to the correctness of the photograph presented, they will refuse to receive the application, and require a correct one.

The photographs shall be sun pictures, such as are usually known as card photographs, of sufficient size and distinctiveness to plainly and accurately represent the entire face of the applicant. The head to be no less than 1½ inches from the base of the hair to base of the chin. No tin-type or other metal picture will be received.

After signing the certificate, and before issue, the collector must affix his official seal thereto, in such a manner that part of the seal impression will be made on the photograph, and in addition thereto he will write across the photograph in red ink, but not across the features, the number of the certificate and the name of the Chinese person.

Duplicate certificates may be issued by collectors upon receipt of written application therefor, with satisfactory evidence that the originals have been lost or destroyed by unavoidable accident, and without fault or negligence on the part of the applicant. In all such cases the collectors are instructed to insure themselves of the identity of applicant with the person to whom the original certificate was issued, and to that end will require with each application a photographic likeness of the applicant, which after comparison with applicant, and the photograph filed with him, duplicate certificates will be attached to the certificate issued in lieu of the one lost or destroyed.

United States Consul General Frank H. Mason, at Frankfort, Germany, in an interesting communication just received at the State Department, declares that a large portion of the American supply of photographic paper is made in Malmedy, a town in Northwestern Germany, near the Belgian frontier, whence it is brought to Aschaffenburg, an important center of the pulp and paper industries, on the River Main, some miles above Frankfort, and there coated with baryta, then exported to the United States and sensitized at factories in Western New York and elsewhere, and finally sold to customers throughout the United States, and exported to Mexico, South America, and even to England.

If the Lord could trust his people with money, every Christian would own a bank.

METHODS OF ENGRAVING.

A FREE course of lectures by eminent specialists to treat exhaustively of engraving, the renaissance, house decoration, and the hygiene and functions of the human body, has been instituted during the present winter at the Drexel Institute in Philadelphia. The most important of this course is a series of nine lectures, on "Old and Modern Methods of Engraving," by Mr. S. R. Koehler, Curator of the Department of Prints, Museum of Fine Arts, Boston, and of the section of Graphic Arts, U. S. National Museum, Washington, D. C.

Mr. Koehler is not a dilettante in his work, but a thorough specialist, bringing to his lectures the practical and technical knowledge gained by him as Curator of the Department of Prints, Boston, and Washington. The lectures, which will be illustrated by stereopticon views and examples of work in the various reproductive arts, will be exhaustive both in regard to their historical and their technical treatment of the art of engraving. The first lecture treated of "Relief Engraving," from the old hand process to the industrial and modern photo-mechanical processes. The second lecture will deal with Intaglio, or Line Engraving, as illustrated by Durer and Goltzius. The third lecture treats of Etching, and the practical demonstration of the process will be illustrated by Mr. Peter Moran. The fourth lecture considers Intaglio Engraving in its aspects of dry pointing, mezzotinting, stippling, aquatinting, soft ground, etc., while the remaining lectures will treat of lithography, photo-mechanical processes, which are the outcome of the modern scientific spirit, half-tone processes, collographic and photo-lithographic processes. The aim of all these lectures is to correct the prevailing popular estimate in which the collection and study of prints is generally held by the public, and to prove that the aim of public print collections is not merely to provide æsthetic enjoyment, but to be used as storehouses of historical information.

The library of the Drexel Institute will be open to the public, the better to aid them in their appreciation of the lectures. An

invaluable collection of books on engraving will be found especially useful.

In opening the course on "Old and Modern Methods of Engraving," on Monday, February 12th, Mr. Koehler explained that the first lecture would be devoted entirely to the discussion of the relief processes of engraving, because these are not only the simplest but also the oldest of all the hand processes.

He then stated that the history of the relief processes shows a very curious peculiarity, namely, that it is divided into two quite distinct periods — the first, that of the wood cut, from the beginning of the art until the 18th century; the second, that of wood engraving from the end of the 18th century down to our own day.

Incidentally the lecturer remarked that the very best of modern wood engraving had been done by American engravers.

He closed by saying that the aim of this lecture would be attained if he had succeeded in making clear to his hearers the difference between the old wood-cut and the modern engraving.

SECOND LECTURE OF THE COURSE ON OLD AND MODERN METHODS OF ENGRAVING.

Mr. S. R. Koehler delivered the second of his course of illustrated lectures in the auditorium of the Drexel Institute, Feb. 15th, on "Old and Modern Methods of Engraving." His subject was: "Intaglio Engraving." After being introduced by Dr. James MacAlister, president of the Institute, he said:

"The subject of my first lecture was relief engraving. To-night I shall have to speak to you of intaglio engraving, which is the very reverse of relief engraving. The term is composed of in and taglio, from the Italian tagliare, and signifies incut engraving, a process in which the lines, dots, etc., which are to carry the ink, are cut into the material of which the printing form is composed." As there are so many kinds of intaglio engraving the lecturer said he would have to divide his subject into several chapters, the first of which would treat of line engraving, the oldest, simplest, and yet most difficult of these processes.

"I was startled not long ago," he said, by hearing one of the finest pieces of line engraving ever done by an American engraver reviled as mere machine work. The assertion simply showed a lack of knowledge to a degree which, I hope, none of you share. The true line engraver," he said, "uses no mechanical means whatever."

The scope and limitations of line engraving were next clearly stated by Mr. Koehler. "The history of line engraving embraces a wide range of progress," he said. "Differing from relief engraving, line engraving shows no break in its history. Between the first crude beginnings and the full mastery attained at a later period there are, of course, many stages, and the history which discloses the links between these two extremes is of wonderful attractiveness."

The first period of the history of line engraving is characterized, he said, by the struggle for the command of the graver, and consequently of the line—the struggle to subjugate the tool and compel it to do the bidding of its master.

After showing by means of the stereopticon examples of early work, Mr. Koehler said: "It was left to Durer to gain complete command of the line, to compel it to follow and accentuate the form, to be bold or delicate at the artist's will. In his 'Adam and Eve,' which bears the early date of 1504, is seen the first great triumph of line engraving in its well-developed chiaroscuro and the use made of contrasts, foreshadowing almost the achievements of the later coloristic engravers."

The lecturer then passed on to early engraving in Italy, the only specimen of which he showed, one of the plates engraved by Mantegna, and called attention to the difference in technique between the early Italian and German work. In the second period of engraving, as the main exponent of which Goltzius was instanced, the lecturer said; "The means mastered the man; that is to say, the engravers became the slaves of their tool, and were so proud of the lines which they engraved that they became their principal aim. All these early engravings may be called simply drawings on the copper plate. The third period of engraving was inaugurated by the men who worked under the influence and

for Rubens. Although they also started out with "the line for the line's sake," they soon found that to give an idea of the paintings which they had to interpret they ought to find means by which they could suggest a chiaroscuro and color. They have therefore, been called the first painters with the graver. The lecturer pointed out the means by which they reached this end, and then gave a few further illustrations to show the development of engraving from the seventh century downward.

This lecture as well as the first, was very instructive, and held the closest attention of the audience.

In connection with his lecture, Mr. Koehler brought with him a unique collection of engravings, etc., which were on exhibition in the great court of the Institute. On several frames were arranged originals of wood engravings of the sixteenth century, and later periods, proofs showing the advanced style of wood engraving, and proofs of etchings, dry point and aquatint. In a glass case were shown the tools used and the processes of Japanese wood engraving. This exhibit, in itself, contained a wonderful mine of information, and was well worth a visit.

THIRD LECTURE OF THE COURSE.

On Monday evening, February 19th, Mr. S. R. Koehler delivered the third lecture of his course on "Old and Modern Methods of Engraving." His subject on this occasion was "Intaglio Engraving—Etching." Mr. Koehler, said, in part:

"The tendency of mankind has always been to try to make the forces of nature do its work, and etching is the first attempt of this kind which we meet with in the history of the multiplying arts.

"Etching is really nothing but the producing of furrows and pits in the metal plate capable of the holding of printing ink by chemical action instead of by the labor of the human hand. This would really make it a substitute process, but the noble service which it has done and is doing elevates it to the rank of the most fascinating of all the multiplying arts. 'The process is so simple,' said the lecturer, 'that it can be demonstrated from beginning to end.'"

He then proceeded, with the assistance of Mr. Peter Moran, the well-known etcher, and Mr. Peters, the printer of etchings, to illustrate the whole process from the preparation of the plate to its last stage, which is the printing. The demonstration was prefaced by the remark that speaking of etching before a Philadelphia audience was very much like "carrying owls to Athens," as Philadelphia might also be called the centre of etching in America. Not only is it the home of Peter Moran, Stephen Parrish, Joseph Pennell, Stephen J. Ferris, and other male etchers, but it is a curious fact also that the very largest part of the many female etchers of America either live in or hail from Philadelphia.

Mr. Moran executed a drawing upon a prepared plate and then bit it in. While he was doing this the lecturer showed the audience how the plate is prepared, and explained the use of the



"points" and other tools and materials employed in etching. The audience was warned against two popular mistakes, the one chargeable to the ladies, who speak of etching on linen, whereas etching involves the use of an acid which would totally destroy linen, and the second, of much greater importance, namely, that etching is an easy matter, which is true, indeed, of the technical part of the process, but is very far from being true of its artistic part. On the contrary, it may be said that, artistically, etching is one of the most difficult processes, and that only a great artist can make a fine etching.

In this connection the lecturer referred to Rembrandt, and remarked incidentally that Rembrandt was technically not a good etcher, but that he was a great artist, and used the process in a rough and ready way for the expression of his ideas.

The lecturer then gave some of the leading facts in the history of etching, using lantern slides for the illustration of his remarks. Up to this point the lecturer dealt entirely with original or painter's etching. The rest of the lecture was devoted to a short account of interpretive etching, and the use made of etching by engravers.

The next lecture, to be given on Thursday evening, February 23d, will treat of dry pointing, mezzo-tinting, stippling, aquatinting and soft-ground etching, and will be fully noted in our next number.

The subjects for the remaining lectures as announced will be: V. Planographic Processes—Substitute Processes.

VI. The Photo-mechanical Processes—Relief Processes applied to line work.

VII. The Photo-mechanical Processes—Half-tone relief Processes—Intaglio Processes.

VIII. The Photo-mechanical Processes—Callographic Processes. Photo-lithography. The Woodburytype.

IX. Print Collections-Engravings as a Subject of Study.

A synopsis of all of which will be placed before our readers in a future number.

RECENT PATENTS.

THE following list of patents relating to the photographic interests is especially reported by Franklin H. Hough, solicitor for American and Foreign Patents, No. 925 F. St., Washington, D. C.

510,371—Photographic printing machine, C. Van Buskirk, Boston, Mass.

510,759-Aerial camera, C. B. Adams, Augusta, Ga.

510,758-Photogrammetry, C. B. Adams, Augusta, Ga.

511,043—Camera stand for bicycles, C. H. Campbell, Ocala, Fla.

511,133-Photographic camera, J. Fretwell, Providence, R. I.



MINUTES OF EXECUTIVE COMMITTEE PHOTOGRA-PHERS' ASSOCIATION OF AMERICA, ST. LOUIS, 1894.

M INUTES of the annual meeting of the Executive Committee, Photographers' Association of America, held at Hotel Rozier, St. Louis, Mo., January 30th, 1894.

Present, Adam Heimberger, president; George T. Bassett, first vice-president; D. R. Coover, second vice-president; J. Ed. Rosch, secretary; John S. Schneider, treasurer.

The meeting was called to order by the president at 2 P.M.

Reading of the reports of the secretary and treasurer for the year ending December 31st, 1893.

The books of the secretary and treasurer were next examined, and found correct, showing a balance of \$885.61. Cash in hands of treasurer, \$585.61; note due from G. M. Carlisle, June 1st, 1894, \$300.00; total, \$885.61.

Resignation of George T. Bassett as first vice-president was read; after some discussion same was laid on the table.

Motion made and seconded to accept bond of Treasurer Schneider as provided by the constitution and by-laws, signed by L. M. Baker, John G. McGuffy, and J. S. Schneider, of Columbus, Ohio.

Next order of business developed a thorough investigation of the various classes as provided by the Executive Board of 1893. This investigation resulted in the introduction of several new classes, and the revision of the rules and regulations of all previous ones.

The following were accepted and endorsed by the entire Board as being beneficial to the Association:

LIST OF AWARDS FOR 1894.

Special Prize.—Handsome Silver Cup. For the best illustration of David Copperfield, Old Curiosity Shop, Oliver Twist, or any other of Dickens's works; one picture to be made, 13 inches or larger. Picture to be framed at the discretion of the exhibitor, with or without glass.

Genre Prize.—Handsome Silver Cup. For three pictures made on any mat-surface paper. Subject to be selected by the exhibitor, title to be appropriately inscribed on each picture. Contact prints 13 inches or larger. Pictures to be framed at the discretion of the exhibitor, with or without glass.

Grand Prize.—Diamond Badge. (Portrait photography exclusively.) Thirty-six pictures; exhibit to consist of twelve cabinets, twelve Paris panels, and twelve pictures, 13 inches or larger.

Class "A."—Six pictures, 16 inches or larger; 1 gold medal, 1 silver medal, 3 bronze medals, 1 diploma.

Class "B."—Twelve pictures, Paris panels to 16 inches; 1 gold medal, 1 silver medal, 2 bronze medals, 1 diploma.

Class "C."—Twenty-four pictures, cabinets to Paris panels; I gold medal, I silver medal, I bronze medal, I diploma.

Class "D."—Rating competition. Competitors in any other class cannot compete in this. Twelve cabinets only; I silver medal, I bronze medal, and diplomas to all over 21 per cent.

Class "E."—Landscape photography. Twelve pictures, 7 inches or larger; 1 silver medal, 1 bronze medal, 1 diploma.

Class "F."—Landscape photography with figures introduced, Twelve pictures, 7 inches or larger; I silver medal, I bronze medal, I diploma.

Class "G."—Interiors. Twelve pictures, 9 inches or larger; 1 silver medal, 1 bronze medal, 1 diploma.

Class "H."—Marine views. Twelve pictures, 9 inches or larger; 1 silver medal, 1 bronze medal, 1 diploma.

Class "I."—Architectural views. Twelve pictures, 9 inches or larger; 1 silver medal, 1 bronze medal, 1 diploma.

This class is to consist of views where the building or detail of building is the main purpose of the picture.

Class "J."—Plain enlargements made on any brand of paper. Six pictures, 21 inches or larger; 1 diploma.

Open to all competition.

Class "K."—Colored pastel enlargement. One picture, 24 inches or larger; 1 gold medal, 1 diploma.

Original to accompany portrait.

Class "L."—Black or sepia enlargement (finished). One picture, 24 inches or larger; 1 silver medal, 1 diploma.

Original to accompany portrait.

Class "M."—Foreign exhibit. Best collection of photographs, framed or unframed, to be delivered to the Association free from all charges; 1 gold medal, 1 silver medal, 1 diploma.

Class "N."—Best improvement in photographic appliances introduced since the last convention; I diploma.

Class "O."-Most tastefully-arranged exhibit; 1 diploma.

The following resolutions were adopted, and will be strictly enforced at the St. Louis Convention:

"All manufacturers or dealers who offer special prizes for exhibits, on or with their product, must deposit such prizes, money or otherwise, with the treasurer of the Association previous to the opening of the Convention, to be awarded by the treasurer according to the decision of the judges, and all said competitors must be members of the Association."

By unanimous consent the Executive Officers decided not to compete for any Association prizes.

The secretary was instructed to press the claim of one hundred and fifty-four dollars (\$15400) of the Murdock-Wunderlich Company, now in the hands of a Receiver, and to communicate with the Crescent Drug & Chemical Company, of Newark, N. J., to demand payment of note due December 20th, 1893, and if it is not promptly paid, to collect same by process of law.

On motion the following committees were appointed:

Committee on Prizes and Badges—Adam Heimberger, J. Ed. Rosch.

Committee on Railroads-John S. Schneider.

Committee on Hall Accommodations-D. R. Coover, J. Ed. Rosch.

Committee on Printing, Hotel Accommodations, and Stenographer—J. Ed. Rosch.

The art department will be in charge of D. R. Coover.

It was deemed advisable by the Executive Committee to strike out the employee's classes, as past experiences have proven a lack of encouragement in that direction.

Motion made and carried to extend a vote of thanks to Mr. Frank Gaiennie, manager of St. Louis Exposition, and St. Louis Photographers, Dealers and Manufacturers, for kind and courteous treatment received at their hands while in St. Louis.

Mr. Bassett's resignation was next read as follows:

"Executive Board Photographers' Association of America.

"Gentlemen:—Feeling that I have done all in my power in the interest of the Photographers' Association of America, and owing to the possible prejudice arising from my present occupation, I feel I can serve the interest of the Association better by withdrawing from the Executive Board, therefore I beg to tender my resignation as first vice-president of the Photographers' Association of America.

"(Signed) GEORGE T. BASSETT."

Mr. Bassett was then requested to absent himself from the Executive Session until a proper conclusion could be reached. After considerable discussion as to the advisability of accepting the resignation, it was unanimously agreed not to do so, Mr. Bassett being nominated and elected at Chicago in good faith by the members of the Association before he occupied his present position, and because of his executive ability to fill the office entrusted to him to the credit of the Association; therefore it was deemed advisable to refuse his absence from the Executive Board.

Next order of business was confined to plans for a program of entertainments, and an evening session which will be published later. The Executive Committee beg leave to say that they will do their utmost to make the next convention a pleasurable, as well as an instructive one, to all those who may be fortunate enough to attend.

DON'T MISS THE ST. LOUIS CONVENTION.

Convention will be held at St. Louis Exposition Hall, July 24th to 27th, inclusive.

Rules and Regulations.—Exhibitors in grand prize cannot exhibit in Class A, B, and C.

All photographs for Association prizes must be made from negatives taken since last convention.

The one dimension given applies to either length or breadth of pictures in all classes.

Should any exhibitor or exhibitors use their influence in any way, directly or indirectly, with the judges during their term of office in favor of any exhibit, it shall be the duty of the judges to strike their exhibit from the list.

Grand prize and classes from A to J to be displayed with or without frames; but the Executive Committee beg leave to suggest that all pictures over 13 inches be framed in one-inch oak frame with or without glass.

Any manufacturer or manufacturers who desire to make an exhibit on his or their product in art department, and not entered for Association competition, cannot occupy more than six lineal feet of wall space in said department for any one exhibit, and no exhibit will be accepted in above department unless exhibitor is a member of the Association (foreign exhibitors excluded).

MARKINGS TO BE CONSIDERED IN ALL CLASSES.

Special and Genre Classes.—First, illustrative; second, originality; third, photographic result.

All Portrait Classes.—First, posing; second, lighting; third, chemical effect.

Class "E."-First, pictorial effect; second, chemical effect.

Class "F."—First, pictorial effect; second, lighting; third, chemical effect.

Class "G."-First, technic; second, chemical effect.

Class "H."-First, pictorial effect; second, chemical effect.

Class "I."-First, pictorial effect; second, chemical effect.

Class "J." - General effect.

Class "K."—First, color; second, likeness; third, artistic effect.

Class "L."-First, likeness; second, artistic effect.

Class "M."—First, posing; second, lighting; third, chemical effect.

Class "N."—Judges to be appointed by the Executive Committee.

Ten marks to be the highest point given for any one point judged; consequently thirty points is the highest that can be given to any one picture.

Cabinets and Paris panels to be judged as an exhibit, not as individual pictures.

Competitors in all classes, except Class M, must be members residing in the United States or Canada.

All exhibits must be shipped to reach the Exposition Building by July 23d, and all charges paid.

Application for space must be made to J. Ed. Rosch, No. 1203 Olive Street, St. Louis, Mo.

Entries to close positively Saturday, July the 21st. No space will be alloted for exhibits after that date.

Appointment of Judges.—Fourteen members (non-exhibitors) to be selected by the Executive Committee on the morning of the first day of the convention. Ten of said fourteen to be elected in open meeting by ballot, five of ten so elected to be elected by lot; the five elected to report for instruction to the secretary immediately after election.

Each judge is to be compensated to the amount of twenty dollars (\$20.00) for his services.

Duties of Judges.—The judges must examine and judge all Association classes; exhibits to be examined separately and individually, judges to hand in a sealed report of their markings on or before the afternoon of the third day to a disinterested person to be accepted by the Association in open meeting, and who will then compute the total.

COMMERCIAL RATING.

CREDIT rating is more easily obtained now-a-days than in the old times, says the New York *Herald*. The process has been simplified by the credit bureaus, the development of the commercial traveling system, and the ready means by which knowledge is diffused by telegraph and rapid mail service.

Not many years ago it was a different matter for an out-of-town merchant to get a rating than it is to day. As a usual thing a man began business in a small way by buying and selling for cash or on short credits. When he came to New York, Philadelphia and Boston he was questioned and cross-questioned on a wide variety of subjects.

One man asked him about the crops and collections in his vicinity; another about his capital, class of trade and volume of business. His answers were carefully noted, and the chances were that his personal habits were made the subject of a rigid investigation. Features such as these enter into the gaining of credits now-a-days, but not to such an extent as say fifty years ago.

It may not be generally known, but it is true, nevertheless, that prejudice, superstition and tradition enter into the matter of credits. To this very day there are merchants in New York who will not sell a bill of merchandise except on cash to a person the terminal letters of whose name are "sky" or "kie." Years ago a class of the population whose names frequently end with these letters were in the habit of failing in business, and hence even to this day a prejudice prevails against them.

In addition to this other names are frequently prejudicial to a business man seeking to buy goods on time. For years, and until his death, a successful merchant in the dry goods commission business would not trust a man, who, as the saying is, parted his name in the middle. A person, for instance, who gave his firm name as J. Thomas Brown & Co., was at once black listed.

"No man," the veteran used to affirm, "who is ashamed of the name given him by his father or at baptism is honest, and no such man can get credit from my house. Trifling incidents sometimes determine a man to give or withhold credits. Thus some years ago old men, believers in the manners and customs of the past, have been known to refuse to sell merchants who wore mustaches or who parted their hair in the center. The predjudice against the former wore away long before the latter was outgrown. In fact, it is only within a comparatively few years that some men could regard others who parted their hair in the center without suspicion or distrust.

Men who were utterly unknown have been at once rated as "good for their wants" by an exhibition of frugality or caution. One instance is recorded of a merchant who, upon entering a store to buy goods, knocked the ashes from a half smoked cigar and put the butt in his pocket. One of the partners who observed this, at once concluded that he was a man careful of small things and capable of paying for his goods. His opinion proved correct, and eventually the man became one of the firm's most desirable customers.

A New National Park.—The measure now on its passage before Congress creating the new "Washington National Park" brings into prominence a region of marvelous scenic and natural interest which has hitherto singularly escaped that wide fame which has come to its rivals of the Yellowstone and the Yosemite. With that characteristic timeliness which has contributed so much to its success, the Review of Reviews, for February, contains a graphic and richly illustrated article, descriptive of the new park, from the pen of Carl Snyder, under the caption of "Our New National Wonderland." The area set apart includes some 1,200 square miles, lying about 40 miles southeast of the city of Tacoma, and contains within its borders the highest, and altogether most superb mountain peak in the United States, Mt. Rainier, or as the aborigines call it, Mt. Tacoma. About this majestic peak is the greatest glacial system in the world, about four times in extent that of the Alps, while on the southern slope of the mountain is a weirdly beautiful natural enclosure known as Paradise Valley. The region, lying as it does in the very depths of the great Washington timber belt, has until recently been almost impossible of access; but a railway now under construction promises shortly to open up to tourist travel a third great natural park, worthy to stand beside the widely-known parks of California and Wyoming.

The Editorial Dropshutter.

Art Lecture.— Especial attention is called to our report of several art lectures held during the past month in Philadelphia. Professor S. R. Koehler is perhaps the best equipped man in the country upon the subject of "Methods of Engraving." The concluding lecture of the series on the various photomechanical processes, will be as instructive as they are valuable, and will prove a revelation to such people as have not kept up with the modern methods of engraving, in which the lens and camera play so important a part.

Fine Animal Studies.—We have been kindly favored with several fine animal studies by S. H. Cope, of 81 E. Main street, Norristown, Pa., the subject being the head of a fine setter dog. One of the photographs is called "Game," the dog having a partri ce mouth. Mr. Cope is one of the best known professionals in Norristown. It is rarely that such fine negatives are obtained from this difficult class of subjects.

The New York Aristotype Co. have now three general offices in as many different cities, viz.: New York, Chicago and San Francisco, aside from their factories at Bloomfield, N. J.

The Blair Camera Co. give notice that after February 17th, 1894, their New York warerooms at 451 Broadway will be discontinued.

A Correction.—In our last notice of Anthony's Bulletin which appeared in the last JOURNAL, we stated that "the same editorial staff appeared on the title." This was an error—the staff now consists of Prof.'s Chas. F. Chandler, Arthur H. Elliott and F. J. Harrison.

The Parvin Lens.—The authorities in charge of the Astro-physical Observatory of the Smithsonian Institution have lately devoted some attention to experiments with the Parvin Tele-Photo-Lens. So satisfactory were the results that two lenses of the largest size were purchased for use of the observatory.

Metol.—A concentrated one-solution developer having metol as a base will soon be put on the market. The new solution is prepared upon a thoroughly scientific basis, after the formulæ of the German invention, and is intended mainly for the use of amateurs and tourists.

Society Notes.

The St. Paul (Minn.) Camera Club.—A class of beginners has been organized, the meetings to be held each Friday night at the club rooms, and to be in charge of one of the members. This should encourage a number of beginners to join the club. The object of the club is the study and advancement of the science of photography. The plan laid out for the winter months, if faithfully carried out by the members, cannot help but be of interest and advantage to every member.

Boston Camera Club.—Officers for 1894: President, Edward R. Andrews; vice-presidents, George M. Morgan, Wm. Sumner Briggs, J. Pierce Loud; secretary, Wilbur C. Brown; treasurer, Owen A. Eames; librarian, Charles Sprague; executive committee, the above officers and Charles H. Currier, David W. Lewis, Francis H. Manning, Joseph T. Greene, John C. Holman, Ernest O. Cockayne; committee on rooms, G. M. Morgan, C. H. Currier, E. O. Cockayne; committee on entertainment, J. P. Loud, F. H. Manning, J. C. Holman; committee on new members, W. S. Briggs, J. T. Greene, D. W. Lewis.

The California Camera Club gave its forty-fourth illustrated lecture on "Westminster and Its Famous Abbey" at the Metropolitan Temple, Friday evening, January 19th, 1894. The lecture and slides were by Charles H. Steele.

The Society of Amateur Photographers of New York.—
The regular monthly meeting was held Tuesday evening, February 13th, 1894, at 8 o'clock. The subject for the evening was "A Lantern Talk on Medical Photography," by Dr. Edward Leaming. Members were requested to extend invitations to their friends and other persons interested in photography to attend this meeting. The annual auction sale of photographic material consigned by members, took place Thursday evening, February 15th.

Russia.—The fourth Photographic Exhibition, under the auspices of the Imperial Polytechnique Society, will be held at St. Petersburg, coming March 25th, and continuing until May 25th. Persons who are interested in the forthcoming exhibition and want further particulars can obtain them by addressing, A. Smirnoff, Bureau Administratif de la IV Exposition Photographique, Cabinet de Lecture, St. Petersburg, Societe Imperiale Polytechnique Russe, Panteleymonskaja, 2.

The Bridgeton Camera Society gave an exhibition of photographs on Wednesday evening, February 14th, at its rooms, 46 to 50. We are indebted to Mr. Frederick F. Smith for an invitation to be present on this enjoyable occasion, but were debarred from being present by a previous engagement.

Minneapolis Camera Club.—The first set of lantern slides sent by the American Lantern Slide Interchange this season was exhibited Friday, January 9th, at the Public Library Building. They were the contribution of the California Camera Club of San Francisco, and are an excellent set of slides. Last season the club exhibitions were practically free to all, but it has now been decided to charge non-members a small admittance fee this year. This will be twenty-five cents for a single entertainment or two dollars for a series of ten. Among the sets to be exhibited the coming winter are two from England, one from Cape Town, South Africa, and another from Foo-Chow, China, in addition to the ten sets contributed by the American societies.

The Camera Club of Hartford, Conn.—Has recently held the most successful exhibition in the history of the Club. There were a number of entries from various well-known amateurs throughout the country, whose work gave additional interest to the exhibition. Under the auspices of the Club a meeting was held for the formation of a State division of the A. L. A. P. and its organization perfected. The officers elected were as follows: President, R. A. Wadsworth, Hartford; First Vice President, George F. Newcomb, New Haven; Second Vice President, Nathan A. Gibbs, Norwich. Secretary, Chas. R. Nason, Hartford; Treasurer, H. T. Stedman, Waterbury; Members of Executive Committee, W. W. Hale, New Haven; H. T. Filley, Waterbury; Geo. L. Pammela, M. D., Hartford; Member at Large, A. Thompson, Hartford.

United Exhibitions at Milan, 1894.—The Special Committee for the International Exhibition of Photography, at Milan, warmly solicit all those who will receive their programme, to kindly favor them with their co-operation, either directly by exposing their works and products, or indirectly by giving them the names and addresses of their friends who are interested in photography.

Obituary.—Mr. Seligman Trier, the senior member of the firm of S. Trier and Son, died on January 30th, after a lingering illness of nearly six months. He was well and favorably known amongst the photo fraternity.

